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## ABSTRACT

Major questions addressed in this study were (1) What is the educative purpose of cooperative education (CE) courses in postsecondary business programs? and (2) What are the essential objectives which will receive appropriate recognition and accreditation from the educational and accrediting community? A survey instrument containing sixteen philosophical statements concerning cooperative education course content was designed, refined, validated, and sent to ten administrators of business programs in senior colleges and universities and to all consultants in two state accrediting agencies. Respondents rank ordered the sixteen statements. The highest ranked statements emphasized career exploration, career growth, and awareness of societal relationships. These were combined with other research factors to produce twenty guidelines for developing and assessing cooperative education course content in postsecondary business programs. Guidelines can be applied to the statements in a CE course syllabus or document, the course description in a college catalog, the procedural outlines in the CE handbook, requirements in the learning contract or training plan, and the stipulations in the employer agreement. Recommendations included these: that a proposed implementation procedure for credentialing and funding purposes be written and that techniques be developed for bringing employing organizations and educational institutions closer together. (BL)

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Criteria For Assessing Content Validity of  
Cooperative Education Courses  
In Post-Secondary Business Programs

DOROTHY ELLEN MCNUTT

A MAJOR APPLIED RESEARCH PROJECT  
PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR  
THE DEGREE OF DOCTOR OF EDUCATION

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EDUCATION & WELFARE  
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Abstract of a Major Applied Research Project Presented  
to Nova University in Partial Fulfillment of the  
Requirements for the Degree of Doctor of Education

CRITERIA FOR ASSESSING CONTENT VALIDITY OF  
COOPERATIVE EDUCATION COURSES  
IN POST-SECONDARY BUSINESS PROGRAMS

By

Dorothy Ellen McNutt

September, 1976

The purpose of this study was to establish criteria for assessing the content validity of cooperative education (CE) courses in business programs at the post-secondary level of education. The major questions addressed by the study were:

1. What is the educative purpose of cooperative education courses in business programs?
2. What are the essential objectives of a cooperative education course of study in business programs which will receive appropriate recognition and accreditation from the educational and accrediting community?

The College of the Mainland cooperative education "learning a living" model, other nationally recognized cooperative education curriculum models, the review of literature, and prior College of the Mainland cooperative education course evaluations served as a basis for designing a survey instrument containing 16 basic philosophical statements concerning CE course content. The statements in the original survey instrument were refined and validated by a jury of 24 post-secondary cooperative education coordinators from community colleges funded under USOE Title IV-D, 1975-76.

The validated survey instrument was mailed to ten Texas administrators of business programs in those senior colleges and universities most

attended by College of the Mainland students and to the population of consultants from the two state accrediting agencies. All consultants and administrators responded to the request for the rank ordering of the 16 statements. There were 21 usable responses returned out of a total of 24.

Respondents rank ordered the 16 cooperative education course content statements on the basis of the most important to the least important, on a scale of 1 through 16. Rank order numbers assigned by the combined group of respondents for each cooperative education statement were totaled. Since the range between the highest and lowest totals of the combined group was more than the total number of respondents, the final criteria for cooperative education courses in business contains 50% of all the statements determined by the lowest totals or the highest rank order.

The highest ranked statements emphasize career exploration, career growth, and confirmation with an awareness of societal relationships. A reaffirmation of the traditional or historical career model for cooperative education is evident in three of the highest ranked statements, and support for a more current field experience goal of examining societal factors influencing the student, the work assignment, and the community is found in five of the highest ranked statements. The lowest ranked statements encompass the more practical aspects of the cooperative education course, such as obtaining employment, managing records, and analyzing policies and benefits of the employing agency. The observed semi-interquartile ranges in the combined group and in each separate group indicated a significantly wide dispersion of

responses; however, the relative validity of the upper group of statements is significant with respect to the lower group of statements.

The criteria for developing or assessing cooperative education course content in post-secondary business programs were established by combining the upper group of statements with other researched factors underlying credentialed cooperative education programs and courses. The "Cooperative Education Criteria" include a definition of the educative purpose, basic course content and a learning system. The Criteria were designed as guidelines for planners and evaluators of CE courses. The Criteria reflect content as well as system components.

The educative purpose of a cooperative education course in business programs is to enable students to define, achieve, and evaluate career-related objectives of a personal, social, intellectual, and occupational nature through active participation in institutionally supervised work experiences in cooperating employer organizations.

The basic course content guidelines reflect career exploration, growth, and confirmation through development of an awareness of societal relationships.

The learning system guidelines assure that the purpose is achieved and that each student receives a viable, meaningful, and creditable experience in a cooperative education course. The learning system guidelines require a confirmation check; a statement of purpose and goals; preassessment activities; individualized behaviorally specified objectives with a prescribed set of learning activities; student, employer, and instructor evaluation; and course evaluation and revision.

The 20 guidelines under the Criteria can be utilized in judging the validity of existing CE courses by applying each guideline to one or all of the following: the statements in a CE course syllabus or document, the course description in a college catalog, the procedural outlines in the CE handbook, requirements in the learning contract or training plan, and the stipulations in the employer agreement. Planners of CE courses can use the Criteria as a conceptual framework for creating the syllabus, course description, handbook, learning contract, and employer agreement.

As the Criteria are used in the assessment of CE courses in business, the courses will be revised and improved; and appropriate recognition and accreditation by the educational and accrediting community in Texas will follow.

It is recommended that a proposed implementation procedure for credentialing and funding purposes be written; that minimum levels of acceptability for each guideline be determined; that the lower group of goal statements be restudied; that minimum educational and work experience requirements for a CE instructor in business be formulated; and that techniques for bringing employing organizations and educational institutions closer together be conducted.

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## CHAPTER I

### INTRODUCTION

A cooperative education (CE) course can be a powerful agent of change, not only for the student but also for the college or university as a whole. This form of education can provide distinct and positive gains in knowledge and behavior, some of which are definable and measurable and some of which are not. Nevertheless, efforts must be made to assess continually this form of education as a means of determining its value in sponsoring each student's personal, social, and occupational growth--career growth--and as a means of establishing its value to the accrediting agencies as well as to the higher education community.

Although undergraduate professional programs have sanctioned and have accredited planned, supervised field experiences in student teaching, nursing practicums, and other internships, the value, the creditability of non-traditional business courses--such as CE--have frequently been ignored by accrediting agencies and four-year colleges and universities in Texas. This problem of recognition creates barriers that prohibit certain groups of people and certain individuals from participating in CE. "Yet our basic task in education should be to find strategies that will take individual differences into consideration but will do so in such a way as to promote the fullest development of the individual" (Bloom, 1973, p. 96). At the root of this problem lies the traditional concept of learning and credit.

Few persons really believe that learning and college credits are synonymous; but, through traditional design, the business curriculum restricts those learning experiences that can receive credit and those that cannot. Samuel B. Gould and K. Patricia Cross (1972) claim that the person "who possesses the knowledge but not the degree is handicapped occupationally, economically, and in many cases even socially" (p. 65).

#### Purpose of Study

The purpose of this study was to establish criteria for assessing the content validity of cooperative education (CE) courses in business programs at the post-secondary level of education. The major focus of the study was to identify those factors that determined the quality of CE course content in post-secondary business programs. The criteria will serve as a basis for the development of CE course content in business programs and/or for the assessment of the quality of existing CE course content in business programs. The criteria should be acceptable to the accrediting agencies and the higher education community in Texas for determining standards which would be a basis for awarding college credit.

#### Justification

The Carnegie Commission on Higher Education encouraged greater utilization of non-classroom experiences, the reduction of academic time in college classrooms, and increased diversity in educational experiences (Mayhew, 1973). Strong public support in the form of Federal legislation and funding for initiating and strengthening programs in CE has been evidenced (USOE, 1974-1975).

Over 430 colleges and universities were funded for CE in 1974-75 under Title IV-D of the 1968 Amendments of the Higher Education Act of 1965. Of the \$10,750,000 appropriated, 38.3% of the Federal money went to community-junior colleges. In fact, the average CE grant for each school was \$28,653 (USOE, 1974-75). Additional money was provided for CE through Title III of the same act and through the Vocational Education Act of 1963. Direct Federal funding under Title IV-D and Title III for CE generally ceases after three to five years, thus placing the responsibility on state and local tax systems for support of these courses.

Proposed Federal legislation from the House of Representatives for the 1976 fiscal year has authorized \$13 million for CE, with increments of \$3 million each fiscal year through the 1979 fiscal year. After 1979, \$24 million is to be authorized for succeeding years (Racz, 1976). The Federal report stated that CE "... is an educational device of enormous potential and deserves the full attention and commitment of those who would undertake to make it a part of their curriculum" (Racz, 1976, p. 2).

Edward S. Lewis (1973), past president of the Cooperative Education Association, stated that nearly 90,000 students were enrolled in CE in 1973; and in regard to CE program growth, James W. Wilson, research professor at Northeastern University, (1975) observed that over 1,000 CE programs were either fully operational or being actively planned. "Of the approximately 10 million college students in the United States today, more than half work while in school" (Ford, 1976, p. 3).

Willard Wirtz (1975) stated that "'Experiential learning' is still a phrase looking for its specific content" (p. 2). Furthermore, he noted

that "Clearly, the decay at the bridges between education and work has proceeded faster than have the bridge builders" (p. 2). Wirtz purported that reliance on a more extensive use of human resources, a part of the natural resources, is exactly what the interrelating of education and work is about. Also, Wirtz showed alarm in what he termed "little development of those mundane but critical measurement and evaluation procedures that are essential both to identify what needs to be done and to determine the effectiveness of whatever efforts are made at doing it" (p. 4). He called for educators to seek a better definition of objectives and to determine a sound educational base for achieving objectives through CE courses.

If public educational institutions do not respond to the needs of these human resources, private enterprises will, as evidenced by an increasing number of businesses that are recognizing public education's slow response to the accreditation of learning resulting from work experience. These businesses are establishing innovative educational programs more to develop fully their human resources. For example, IBM Corporation has written a personal growth plan that is designed to assist employees' assessment of their own needs and to develop employees through the utilization of one of the company's 275 educational centers (O'Toole, 1976). The RAND and Arthur D. Little Corporations, as well as the General Motors Institute, have been accredited to grant degrees, providing in-house or on-the-job instruction for these degrees. Xerox Corporation and RCA and American National Insurance Company have created instructional media for employees to study during work hours. In 1975 employers were spending up to \$20

billion annually for on-the-job training (O'Toole, 1976). According to O'Toole these extended educational opportunities are affording the American worker with individualized career planning and development; establishing worker participation in line decision-making; creating democratic task forces; and enlarging, enriching, and rotating employee assignments. These reforms by private enterprises could absorb more and more of the current educational training functions of the public higher educational institutions.

Few CE employers in Texas fully understand the educational outcomes or the benefits accrued from well-planned CE courses. Most CE courses in Texas do not lead to the fullest development of students, because many courses are characterized by one or more of the following shortcomings: low quality planning and programming, narrow training plans, untransferability of learned skills, the CE instructor's limited knowledge about education, emphasis on placement activities as opposed to course design, and non-innovative CE leadership.

The intent of most CE programs in Texas is to meet some of the needs of each of the students; however, to act as though each student's needs will be met simply because of "good intentions" is imprudent. Something for each student is most likely to happen when it happens by design. A cooperative educational course must be planned, implemented, evaluated, and confirmed before CE students' needs are met and before CE courses will be fully accredited.

Most four-year Texas universities and colleges have not given CE courses in business full recognition. Texas accrediting agencies have not given CE courses full recognition and funding. Lack of

academic acceptability for CE courses in business by faculty and administrators of four-year colleges and universities and by state accrediting agencies is one basic issue. A secondary issue stems from the diversity of CE employers and their interpretation of the value of the CE course as opposed to the value of an unplanned or unexamined part-time or full-time work experience. Establishing the educational purpose and course content of CE in business should partially resolve the two basic issues.

The major questions addressed by this study which identifies criteria for the assessment of the content validity of the CE courses in post-secondary business programs are:

1. What is the educative purpose of CE courses in business programs?
2. What are the essential objectives of a CE course of study in business programs which will receive appropriate recognition and accreditation from the educational and accrediting community?

#### Scope and Limitations

This study was limited to the examination of CE course content only and did not seek to examine other concerns in CE programs--such as organizational structure, operational alternatives, instructional modes, or teacher qualifications.

The limitations of this study were found primarily in its narrowness of application. Only CE courses in business programs in post-secondary education in Texas may be assessed with any assurance; thus, the criteria defined by this study cannot be generalized to be acceptable to all educators and representatives of accrediting agencies.

Defining the CE course content in business programs may not be of particular interest or importance to administrators in other program areas in other Texas community or four-year colleges, as local circumstances and student needs may indicate different priorities for CE courses in other locations. Even administrators of business programs in out-of-state environments may feel that the CE course criteria, as formulated by the study, has no application for their particular degrees.

### Special Statements

Terms that have a unique meaning for this study are listed as follows:

Cognitive domain--Hierarchical objectives dealing with remembering and recalling knowledge, thinking, problem solving, and creating--the development of intellectual abilities and skills (Bloom, 1956).

Cooperative education (CE)--A strategy in education that formally integrates the student's college studies with institutionally supervised work experiences in cooperating employer organizations.

Cooperative education at College of the Mainland (COM)--Cooperative education in business programs at COM is a one-, two-, or three-semester plan that offers a student work in the community during his studies at the College. Each course (CE 241, 242, 243) offers four hours of credit for completion of exploratory, career preparatory, or career retraining or enrichment objectives. The alternating, parallel, or extended-day plan may be chosen by the student, with the option of receiving pay or no pay for his work.

Credit--The record-keeping units which symbolize the amount of education a student has accumulated and which quantitatively measure a student's college education.

Document--For students, a COM publication listing content, goals, and behaviorally specified objectives for a course.

Learning--A changed capability for, or tendency toward, acting in particular ways--a retainable quality, not brought about by drugs or fatigue, maturation, etc. A process by which an activity originates or is changed through reacting to an encountered situation. (Hilgard, 1966, p. 2)

Objective--A formulation of the way in which a specific, observable student action or product of student action can be observed.

Occupation--One's primary work role in the world of paid employment. (Hoyt, 1975)

Program--A series of related courses with single or similar objectives.

Vocation--One's primary work role at any given time: paid and unpaid--student, volunteer worker, housewife, etc. (Hoyt, 1975)

Work--A conscious effort providing benefits for oneself and others. (Hoyt, 1975)

#### Procedures and Methodology

The COM cooperative education "learning a living" model (McNutt, 1974), other nationally recognized CE curriculum models, the review of CE literature, and prior COM cooperative education course evaluations served as a basis for designing a survey instrument containing 16 basic philosophical statements concerning CE course content. These statements were assembled to serve as a conceptual framework for establishing criteria for assessing the content validity of CE courses in business programs in post-secondary education.

Each of the statements in the original survey instrument was refined and validated by a jury of 24 post-secondary CE coordinators from community colleges receiving USOE funding under Title IV-D, 1975-76. This jury was invited by mail to a meeting scheduled during the Cooperative Education Association Convention on April 21, 1976, in New Orleans, Louisiana. The jury was requested to evaluate each statement on the basis of clarity, comprehension, coherence, correctness, and completeness. Also, the jury was petitioned for additional philosophical statements, thus constituting the jury or validation group as a panel of experts. After the evaluation process, the jury refined the CE statements.

The survey was directed to ten Texas four-year college and university administrators of business programs, representing the population of schools identified by the COM Director of Admissions and Records as those senior colleges and universities most attended by COM students. In addition, 14 state consultants representing the population of consultants in both accrediting agencies--Texas Education Agency and Coordinating Board of Texas--were surveyed.

The validated instrument, requesting rank ordering of the statements, and a cover letter, explaining the purpose of the research and requesting the participation of each person, were mailed. Three weeks after the initial mailing, a letter was forwarded to non-respondents encouraging their participation. Another copy of the survey instrument was mailed with the second letter. Three respondents whose data required clarification were telephoned. Three additional telephone contacts were made as a means of requesting a return of the survey instrument. The survey was closed seven weeks after the first mailing. Respondents from the universities, colleges, and state agencies identified those statements that they considered important for validating CE course content in post-secondary business programs. The highest ranked statements represented criteria considered most essential for validating CE course content. This strategy for determining statements which established the criteria was selected for the following reasons: external evaluation offered more objectivity; a diversified group of respondents provided greater reliability (Roueche, 1975); and, the statements from the validated instrument, the survey mode, and the prestigious population of educators and state representatives carried substantially more credibility. The final criteria reflects those statements which were confirmed as most acceptable to the respondents.

## CHAPTER II

### REVIEW OF RELATED LITERATURE

To determine appropriate CE course content, to measure the outcomes of the CE experience, to validate changes brought about through CE, and to encourage the application of standards to the CE course are challenges to proponents of this form of non-traditional education. Currently, non-traditional approaches to learning are being considered by the higher education community as a process for helping students take responsibility for their own development, creating new social understandings, developing skills necessary for the evaluation of the democratic life, and establishing adequate goals and objectives for survival in the world of the future. The review of related literature and the criteria developed from this study will assist CE teachers in meeting the challenges of this non-traditional educational endeavor and will provide a format for accrediting agencies and the higher educational community to reexamine the educational soundness and impact of CE on the career growth of the business student.

Selected publications are reviewed in this chapter under three broad categories: first, College Degree Credit for Cooperative Education; second, Program Development and Research for Cooperative Education; and third, College of the Mainland Model for Cooperative Education.

### College Degree Credit for Cooperative Education

College credits, as reflected through grades, are more often than not a measure of time spent on a college or university campus and are more often than not awarded on the basis of subjective evidence reflecting the specific policies and/or practices of individual teachers. Yet, to be useful, credits for all college courses should specify:

1. the intellectual content of the credited experience,
2. the general nature of the activities involved, and
3. the level of competence acquired...(Cross, 1974, p. 139).

Higher education in Texas has few consistent criteria by which learning may be evaluated and accredited; nevertheless, the issue of awarding college credit for CE courses has been debated by members of the higher education community in the state for over a decade. In 1973 K. Patricia Cross proposed that research about CE must be considered first priority to establish the educational reliability and impact on students, thus paving the way for appropriate recognition for CE.

The practical reasons often cited for awarding college credit for CE are not as persuasive in faculty groups as CE teachers and coordinators may believe. In the spring of 1972 via telephone interviews with directors of 26 CE programs, James W. Wilson (1973b) confirmed that much opposition to college credit for CE came almost exclusively from the members of the teaching faculty. Wilson (1973b) proposed several reasons for faculty objections:

1. Giving academic credit for non-academic activity is the first and principal basis of objection. The point is made that academic pursuit, by long-standing tradition, means to engage in a course or period of formal study....

2. Pushing further, the point is made that cooperative work assignments, at least in most instances, do not require of students rigorous application of intellectual behavior....
3. Opportunities to manipulate the work situation and, hence, the learning characteristics of the experience, are minimal....
4. Granting the educational merits of cooperative education work, were credit given for it, would lead to credit for any life experience....
5. There have been many instances of senior colleges accepting transfer students but rejecting credits gained through off-campus work.... The question is one of accepting or rejecting the student and the degree.
6. Accrediting bodies will look with disfavor at the practice of granting credit for work. (p. 33-34)

The above objections were based on the supposition that credit was awarded for the work experience; however, most advocates of CE would take the position that credit should be earned by learning through the work experience. Wilson (1973b) maintained that credit should be awarded on the basis of learning outcomes which result from the work experience. Experiences are also important but principally because they constitute a design to aid students to achieve educational goals, according to Wilson (1973b). Further clarification of the reasons for objections to evaluating and awarding college credit for non-traditional courses was made by Cross in 1974. She enumerated three factors that tended to perpetuate this wariness: "unfamiliarity with out-of-class learning, the possibility of fraud and error, and uncertainties over both purpose and procedures" (Cross, 1974, p. 128).

Thus, those elements that are both relevant and important to establishing the creditability of CE are significant and appropriate

learning goals and objectives, meaningful strategies for achieving those goals and objectives, and evaluation of student learning outcomes. The evaluation of learning should be unaffected by the process utilized for acquiring learning. Furthermore, if the CE work experience (the process) facilitates the achievement of educational goals and objectives (learning outcomes), the educational and accrediting community should support CE and allow credit for CE, as partial fulfillment of the requirements of a degree.

In 1971, Asa Knowles conducted a survey on academic credit for CE. Knowles (1971) found that responsibility for the granting of academic credit, plus determining what off-campus experiences were acceptable for credit, rested with the teaching faculty in slightly more than half of the institutions. At the remainder of the surveyed institutions, the CE coordination staff and variously composed special committees had the responsibility.

Two years later Wilson (1973) insisted that a CE coordinator is an educator, since he is given the responsibility of implementing an educational plan and since his essential responsibilities adhere to the educative process. Furthermore, Wilson (1973) proposed that the coordinator should be a learning specialist who is able to facilitate the learning process through specifying the educational objectives or goals to be achieved by the students, to design or to identify those learning experiences that can best help the students achieve those objectives and goals, and to evaluate the achievement toward those goals by the students. If the CE coordinator is an educator, he should have the responsibility for specifying CE course content and awarding credit.

After conducting the fifth annual survey of CE institutions to define the concerns and issues of CE, Wilson (1973) reported that most CE directors perceived appropriate job development and placement to be the major criterion for determining excellence for CE. Last in the order of concern for program success were outcomes and evaluation. Only a quarter of the surveyed respondents ranked outcomes and evaluation as criteria of program success. Wilson (1973a) reflected concern for these perceptions through his statement:

Yet, as degree credit for cooperative education is adopted as policy by more and more institutions the issue of accountability will become correspondingly more critical. It is not suggested that concern about operational problems be forgotten and efforts to deal with them abandoned. Rather, it is suggested that an additional task must become a part of the operational core of cooperative education--the evaluation of student learning resulting from cooperative education work experience. (p. 6)

Michael A. Hart (1973) reported that in the State of Georgia Intern Program, three key participants--the campus coordinator, the faculty advisor, and the agency supervisor--directed the student learner. The campus coordinator served as the liaison between the intern program and the college, advertised the program on the campus, recruited students, scheduled student interviews, made arrangements for course credit, arranged for appropriate faculty advisors, and administered the program. The faculty advisor's main responsibility was to insure that the academic quality of the internship was maintained; i.e., the advisor defined the

goals and objectives with the intern, maintained close contact with the intern, counseled the intern, and established procedures for evaluating the experience for course credit. Course content for this off-campus experience was not specified. However, Hart (1973) enumerated six criteria for evaluation: attitude and interest toward the experience; degree of cooperation; independence and maturity; time and work; personal growth and development; changes in values and attitudes; and accomplishment through the project. A learning contract with learning objectives and evaluative techniques were negotiated prior to the beginning of the intern's project. Credit was assigned by a faculty advisor. The Board of Regents of the Institutions of the University System in a policy statement fully endorsed the intern program for degree credit (Hart, 1973).

In a 1974 unpublished survey of CE colleges and universities, degree credit for CE courses was a controversial issue for all schools surveyed; since traditional CE models had placed little emphasis on assisting the student in relating his CE experiences to his educational goals, but rather had emphasized the placement activity and fulltime work related to the student's career interest (McNutt, 1974). The differences were greater than the similarities between the surveyed schools' philosophy and goals and those of COM. However, in another survey in 1975, a noticeable 91% of the selected community colleges awarded credit based on 19 different combinations of evaluation strategies (McNutt, 1975). The traditional emphasis by four-year colleges and universities upon a work report and the employer evaluation as the sole means for evaluating the outcomes of the CE experience had been changed by the community colleges to other strategies for the measurement of student learning.

Of the 19 evaluative approaches reported for measuring student learning, three combinations occurred most frequently:

1. goals and behaviorally specified objectives, the employer's evaluation, and the coordinator's evaluation;
2. behaviorally specified objectives, the employer's evaluation, the coordinator's evaluation, and the faculty evaluation;
3. behaviorally specified objectives, a semester report, the employer's evaluation, and the coordinator's evaluation. (McNutt, 1975, p. 12)

An emerging technique for measuring learning in CE was student/self evaluation. Of the selected respondents 8% were using this approach, combined with behaviorally specified objectives and the employer's evaluation (McNutt, 1975).

In a current study of CE consortia in the United States (McNutt, 1975), scant evidence of having defined or designed educational outcomes or criteria for CE courses was revealed. The study showed that of the 54 CE administrators/respondents, representing 19 consortia, 67% formed a consortium to improve their chances of receiving Federal funds and to promote positive relationships with other institutions. Only 25% of the respondents perceived the "credit versus no-credit" issue as best resolved through their concerted efforts and only 32% felt that the development of an educational plan for CE courses was important as a consortium goal.

The greater Houston-Galveston Cooperative Education Consortium in Texas has worked with both state accrediting agencies, the Texas Education Agency and the Coordinating Board of Texas, to establish appropriate administrative CE guidelines and funding criteria; however, their primary research efforts have been directed toward refining CE strategies

and defining contact hours and funding alternatives (GH-GCEC, 1975). This Consortium's membership has grappled for three years with the issue of defining educational outcomes and establishing criteria for judging which CE courses have credit-producing potential and which do not; but, a final consensus on these issues from this group of CE coordinators, representing six Texas community colleges, has not been reached.

#### Program Development and Research for Cooperative Education

Historically, CE began in the United States in 1906 as an experimental program in the School of Engineering at the University of Cincinnati by Herman Schneider. The basic concept was one of alternating on-campus study and off-campus work. Since 1946 the growth of CE in other areas, such as business administration, liberal arts, and education, has been instrumental in its accelerated development. By 1960 the number of baccalaureate institutions operating CE programs had increased to 61. Ten junior, community, and technical colleges had established cooperative programs by this date, bringing the total number of programs to 71 (Collins, 1970). "The number of different curricula offering the co-operative plan increased from 46 in 1954 to 165 in 1970" (Knowles, p. 17, 1971). Sylvia J. Brown and James W. Wilson (1975) reported a population increase of CE programs from 277 in 1971 to 968 in 1968. The Brown and Wilson (1975) survey results showed an increasing diversity in many facets of program operation with more programs supporting a variety of approaches to CE.

Leadership in CE research emerged in 1961 when James W. Wilson and Edward H. Lyon published a comprehensive study concerning CE. Sponsored by a grant from the Fund for the Advancement of Education and directed

by Ralph W. Tyler, this research appraised the major aspects of CE and compared cooperative education students and graduates with non-cooperative education students and graduates. The study recommended that CE programs be widely expanded to include many more colleges and universities as CE had proved to be a superior form of education. A listing of differences in the values gained by students under cooperative education as compared to students under non-cooperative education programs evolved from the research. Significant differences in values that were pertinent to this study are as follows:

1. By relating cooperative education work experience with the academic program, cooperative education students found greater meaning in their studies, and theory and practice were more closely integrated.
2. The coordinating of cooperative education work and study increased cooperative education student motivation.
3. For many students, cooperative education work experience contributed to a greater sense of responsibility, a greater dependence on their own judgments, and a more rapid development of their maturity.
4. By working with others who came from a variety of backgrounds, most cooperative education students developed greater understanding of other people and greater skills in human relations. (Wilson, 1961, p. 6)

Various researchers have hypothesized that participation in a CE program should favorably influence academic performance. Using entrants into the Virginia Polytechnic Institute, for the year 1959, Stuart H. Smith (1965) compared the performance of 85 CE students with 95 full-time students of engineering. By comparison of the grade index, as the two groups progressed through the course, an improvement was found in the CE students. The difference, however, was significant only at the .20 level. Roy S. Lindenmeyer (1967), using Smith's analysis as

a basis, carried out similar work at Northwestern University Technological Institute. Apart from the changes in grade index level, both researchers found that the CE students, as a group, had a lower percentage of failure and a lower attrition rate and that the improvement in all subject areas was most noticeable in the academically lower half of the group (Lindenmeyer, 1967).

By considering the academic performance of CE students at Swinburn College of Technology in Australia, from 1963 to 1971, Robert S. Davie and James K. Russell (1974) undertook a systematic study of the CE program to determine if a change in academic performance could be found from an analysis of results obtained from a questionnaire administered to CE students and ex-students. The study revealed that the performance by the CE students, in terms of passing subjects, had improved following industrial experience. This improvement was shown both by comparison with the performance of similar full-time students. The report noted that following the CE experience, the number of courses passed out of the total courses taken had improved and that this result was significant at better than the .05 level.

In a report by George J. Gore (1973), both cooperative education and non-cooperative education graduates were interviewed in order to assemble a profile of those students graduating from the University of Cincinnati from 1964-1969. From the overall conclusions two findings were significant to this study:

1. Almost without exception, the emphasis on personal resume value was associated with work experience while in school, followed by academic grade point average.

2. One out of three students indicated that their co-op work experience was of direct value in obtaining their first position. They felt it aided their grade point average, and they were strongly positive about the co-op experience. (Gore, 1973, p. 58)

Roy L. Wooldridge (1970) reported important gains from CE experiences by business administration majors at Northeastern University. An area of measured gain for these CE students was in learning about the economical use of time, manpower, and money.

Carolyn D. Kany (1973), research associate in cooperative education at Northeastern University, reported in a pilot probe concerning meanings of work to women students in a CE program that cooperative work experiences have a positive influence on women's career commitments and identity. That is to say, CE appeared to lessen the hazards of identification crises in the classroom; thus enabling the woman to be more internally motivated, nearer to self-actualization, and more in control of her environment.

In January, 1974, Fresno City College sponsored a study by Gilbert Peart to explore certain aspects of the CE program. An 80.6% return of the questionnaires from students enrolled in the cooperative work experience classes revealed that 91% of the respondents agreed that gaining a better understanding of the relationship between classroom theory and practical application was one of the most valuable phases of the work experience program. In descending order of frequency, items descriptive of benefits gained from the cooperative experience were ranked by Peart. Of the 398 students who completed the questionnaire, 178 felt that CE made their college classes more meaningful, and 233 felt that they had gained a greater appreciation of learning and performance objectives.

Research studies prior to 1974 (Bennett, 1973; Hiserodt, 1971; Knowles, 1971; Lucas, 1973; Seaverns, 1970) have produced guidelines designed to assist CE teachers in planning and implementing an effective CE program, but few of these studies provided information for actual CE course or content development. Educational outcomes are not extensively defined, and the work experience is usually emphasized as the creditable portion of the off-campus placement.

Responding to a growing concern for defining student outcomes in CE programs, Richard N. Swanson (1974) developed guidelines for the evaluation of CE programs in post-secondary institutions. Swanson identified 17 objectives and 17 evaluative criteria for CE programs. Utilizing the Cooperative Education Association membership list of 1973, he requested priority ranking of CE program objectives and expectancy levels for evaluative criteria by the Cooperative Education Association respondents. Respondents were members of community colleges, vocational/technical schools, four-year colleges and universities, government agencies, and private enterprises in the United States. The highest percentage of respondents were CE coordinators, with 36.3% relative frequency; the lowest percentage of respondents were liberal arts persons and business administration persons with 2.0% and 2.5% relative frequency, respectively.

According to Swanson (1974), the following objectives for CE programs represent those objectives that were perceived as first priority by 75% of the respondents:

1. Cooperative education students will develop skill in the application of theory to practical work situations.
2. Cooperative education will provide students the opportunity to test their interest in a particular career before permanent commitments are made.

3. Cooperative education will provide students the opportunity to test their aptitude for a particular career before permanent commitments are made.
4. Cooperative education students will develop skills and techniques directly applicable to their careers. (p. 26-27)

Swanson (1974) noted that the first priority CE program objectives placed emphasis on career development and exploration. Objectives that were ranked as low priority in the Swanson study were:

1. Cooperative education students will have higher levels of academic performance.
2. Cooperative education programs will reduce student dropouts.
3. Cooperative education programs will increase student earning potential upon graduation. (p. 26-28)

The final guidelines for CE programs, as established by the Swanson study, offer a base for further research aimed at establishing creditability for specific CE courses in specific post-secondary programs.

A manual for implementing occupational CE courses in community colleges emerged in 1970, as a result of a consortium of five California community colleges funded under a USOE grant, Part D, of the Vocational Education Act of 1963. From this three-year exemplary project, research revealed that retention rates improved significantly and potential dropouts frequently changed to CE courses to remain in college (Bennett, 1972). Noteworthy accomplishments of this consortium were in the following areas: research involving academic standing of and total income earned by CE students; placement of the educationally disadvantaged, veterans, and adults; design of a cost-effective CE program; research linking educational preparation and permanent employment; implementation of CE on-the-job training, upgrading, and retraining; development of strategies for

job placement and development; and a definition of alternatives for employer participation in CE. Emphasis in the CE courses administered by these California schools centered on the appropriate placement of students in career-related work, visitation of CE coordinators to the work site, and design of on-the-job performance objectives for CE students. Statements concerning CE course content were general.

Berea College in Kentucky, however, has defined more specific outcomes for the on-campus labor program supporting an average of 1,400 working students. Committed to the idea that labor is an integral part of living, Berea personnel set as their purpose "to mold the character, the work habits and, very often, the careers of their students" (Ford, 1976, p. 1). The Berea labor program, similar to CE programs, was designed to aid the student in demonstrating social responsibility, self assurance, and knowledge of his interests and competencies.

Rose Palmer and Harry N. Heinemann (1976) of Fiorello H. La Guardia Community College proposed additional, but similar, CE program outcomes, when college credit is sought: to enable the CE student to test a career, to understand the world of work, and to mature as an individual. These outcomes were congruent with the master plan for CE at their college. The master plan directed the CE program to provide for technical and personal skills needed for continued education or for entry into the labor market or for self-understanding through human interaction (Soper, 1972). According to Palmer and Heinemann (1976), CE for business majors at their college has enabled the students to examine classroom concepts through work experience; to discover processes and systems within the employing organization; and to study

supervisory styles, organizational structures, communication networks, worker attitudes, and levels of job satisfaction.

Field experience advocates have provided direction for further research in defining educational outcomes for the non-traditional approaches to learning. While I. Stephen Zwerling (1974) viewed the educational objectives of internship experiences as requiring self-examination and self-definition, John Duley (1974) recommended that the objectives for field experiences develop the abilities to utilize information sources within the social environment; to appreciate the structures, values, feelings, and attitudes of people in other cultures; to listen well and speak clearly; to become involved with others; to reach conclusions and take actions; to know oneself; and to become independent and accept responsibility for one's actions.

The importance of written agreements, or training contracts, as a form or structure for recording goals and objectives of non-traditional programs was emphasized in current literature (Angus, 1974; Bennett, 1973; Brown, 1971; Callahan, 1974; Duley, 1974; Granger, 1975; Heerman, 1973; Knowles, 1971; McNutt, 1974a). Generally, the agreements or contracts discussed in this research required specification of the course goals and objectives only; however, some course plans required not only the course goals and objectives, but also a list of activities and evaluative criteria (Granger, 1975; McNutt, 1974a).

Preliminary research data obtained from an interim report by Wilson (1975a) supported the evaluation of the CE experience through behaviorally specified objectives. Wilson selected 34 post-secondary institutions in the United States and sought to appraise each student's experience in

cooperative education. College of the Mainland was selected as a participant in his study designed to test the student's view of CE at a community college that had specified course content and that had utilized behaviorally specified objectives. The raw data showed significant positive differences in the COM cooperative education students' appraisal of the CE program and that of the overall student responses representing other CE programs.

Also, College Associates, Inc., directed by John E. Roueche (1975), conducted an external validation project for course documents at COM. This validation project included the CE course documents from business programs. College Associates, Inc., engaged instructors in community colleges, other than COM, to evaluate the CE course documents. The results of the evaluation and subsequent validation of the CE course documents showed an excellent rating by respondents with full support given to the individualized approach that is utilized in the COM model (Roueche, 1975).

#### College of the Mainland Model for Cooperative Education

Cooperative education courses at COM were first implemented in 1969 under the Division of Business in the secretarial programs. Since 1969 CE courses have been added to program requirements for the Associate in Applied Science (AAS) degree in accounting, computer science, management, marketing, real estate, and banking. Students enrolled in the Associate in Arts (AA) degree may enroll for CE but are advised that these courses may or may not transfer to senior institutions as college degree credit.

Course goals and objectives in cooperative education at COM have evolved from a narrow philosophical base centering on the goals of the

College and employing organizations towards a broader, more general philosophy embracing both the personal and professional goals and objectives of the individual student. Guided by the COM Prospectus, cooperative education instructors at COM reexamined and reevaluated their course(s) each year for the purpose of assuring each student the opportunity of experiencing change in the cognitive, the affective, and/or psychomotor domains.

A follow-up study of both cooperative education and non-cooperative education business graduates (McNutt, 1971) at COM was made. The study indicated that more CE graduates continued their education at the four-year university/college and worked in their career choice than did non-cooperative education graduates. The significance of this study was that at COM cooperative education in the business programs had been one factor in career confirmation and in commitment to the continuing education concept.

In 1973 the CE instructors in the Division of Business at COM began an individualized, self-paced, open-entry and open-exit program for CE students. Under a systems approach to learning, goals and individualized behaviorally specified objectives that required critical and creative thinking; a reexamination of values, attitudes, and interests; effective communication skills; and development of occupational skills were written. These CE courses were designed as vehicles for discovery and reinforcement of those personality factors affecting the CE students' success. In the prevailing culture of the United States, the central means of proving one's worth appeared to be through successful achievement

in work; thus, these CE courses capitalized on this widely held value and offered the student an opportunity to gain self-esteem through CE work experience.

Several years ago the media sage, Marshall McLuhan, stated that the future of work would consist of "learning a living." The COM cooperative education courses were designed with this concept. This "learning a living" model for education proposed to maximize growth in terms of cognitive and affective development, interpersonal relations, and the ongoing emergence of a self-concept. Instead of leaving learning to the minimally controlled environment of a "work station," cooperative education at COM, an experimentally oriented institution, was designed to insure that the exposure to related work and the actual CE experience was integrated with the business curriculum.

Thus, the value of CE was not in its separateness from on-campus activities, but in its capacity to complement and broaden the goals of formal academic and vocational preparation. By complementing those goals, the student gained an understanding of the interrelatedness of the college study with daily life experiences. By broadening the goals, the student personalized education to fit his longer term personal and career goals.

To measure the effectiveness and success of this approach to learning, a comparison of COM cooperative education and non-cooperative education students' mean grade point average in two courses was made (McNutt, 1974). The population was limited to those students majoring in business. A random sample for establishing the experimental and control groups was made. A t test with a critical t value of 1.684 and a df of 40 was

applied to a one-tailed test. The calculated  $t$  value exceeded the critical  $t$  value; thus, the mean grade point average for CE students was significantly higher than the mean grade point average in the same courses for non-cooperative education students at the .05 level of significance. Factors affecting success or non-success, reflected through grade point average, were found to be especially important to COM faculty and administrators.

Essential to the formulation of the criteria for CE courses was the COM "learning a living" model. To further clarify this CE model, a delineation of the system with its rationale, components, and functions are included as a part of this study.

First, a "reality check" was made prior to CE course planning through advisory task groups composed of employers, other community representatives, COM administrators, faculty, and students. The philosophy of cooperative education at COM was formulated, and the rationale and values assembled.

As CE courses were to be open to a diversity of business students at COM, three purposes were defined for this non-traditional educational experience: career exploratory, career preparatory, or career enrichment.

The CE program goals were stated in a student document that each student received during the initial recruitment and interview period. These goals were:

1. The student will be able to integrate the various theories and concepts studied in the classroom environment to an actual work environment.
2. The student will see his/her internship as a coherent and unified expression of personal and career aspirations.

3. The student will examine his/her present concern for the natural social environments--world, local, self--in terms of responsibilities, attitudes, behaviors and skills of democratic citizenship and view his/her career interests in their larger social context.
4. The student will increase his/her understanding of his/her organizations which are a part of American society and acquire an awareness of the relationship between the job, business, and society.
5. The student will be able to evaluate his/her cooperative education assignment.
6. The student will be aware of high performance behavior and understand the value of appropriate work habits.
7. The student will understand appropriate procedures for maintaining accurate employment records. (McNutt, 1973, p. 5)

In the planning stage of the CE course, the student with the employer and instructor has written five objectives and has contracted for a semester goal project. The design of these objectives has been influenced by the student's entry level skills, determined by a comprehensive assessment program. Five broad categories have guided the student in designing his own course of self-development: improvement of technical skills; cooperation and collaboration with others in analyzing and formulating solutions and taking action; reexamination and improvement of interpersonal skills, attitudes, and values; determination of opportunities to improve the social and/or organizational environments; and demonstration of a knowledge of career requirements. Many objectives have been written to offer immediate application of theory presented in parallel, career-related classes. These objectives have guided the student through a CE work program that designates a progression of meaningful tasks with new learning opportunities, when mastery is evidenced. A learning objectives contract has served as a form for recording and measuring

each objective. According to Malcolm S. Knowles (1970), a self-diagnosed need for learning produces a much greater motivation to learn than an externally diagnosed need. The individualized objectives approach at COM has afforded this opportunity for the CE student; i.e., the CE student has had an opportunity to participate in his plan for learning.

After five objectives have been designated, a plan for implementation is created by the student, the employer, and the instructor. Sequential experiences, simple to complex tasks, time management, definition of both human and material resources, procedural problems, and strategies for attacking problems have been considered in planning for the achievement of these objectives.

In 1975, 283 CE objectives, written with and for CE students from 1973 to 1975 at COM, were analyzed and classified according to Benjamin S. Bloom's hierarchy (1966). The study revealed that 78% of the objectives placed in the cognitive domain; 10% in the affective domain; and 12% in the psychomotor domain. Of the cognitive objectives, 60% were above the application level; i.e., 60% required analysis, synthesis, and evaluation (McNutt, 1975).

Upon completion or mastery of each of the objectives, the student, employer, and/or instructor have evaluated and checked the achievement level on a scale of 1 to 4. At the end of the semester, a student receiving at least three objectives rated at 2 or above receives a C grade; at least four, at 2 or above, a B; and all, rated at 1, an A. The evaluations recorded on a learning objectives contract have determined in part the quality grade awarded.

In addition, a semester project has been required of each student. For this project, a statement of the goal, objectives, plan of implementation, and evaluation criteria have been planned and negotiated with the student. After planning for the project, the student and instructor have constructed a specification chart for evaluation.

Cooperative education courses at COM have encompassed diversified methods of learning, all dependent upon the assessment of the learner's maturity, his level of functioning, and his objectives. Some examples of internal or on-campus instructional methods have been seminars, individual counseling, project task forces, planning committees, shared experiences, panel discussions, and open forums. Methods external to the classroom have been off-campus community and organizational research, both oral and written, and field visitations. To identify and provide both human and material resources needed for the achievement of learning objectives has tested the ability of the CE instructor in knowledges of the local and national, social, physical, and cultural environments.

Because a grade must be assigned to the CE course, the instructor and the student in an exit interview have evaluated the semester project; accomplishment of the five individualized objectives; the personal growth of the student; the evaluation form completed by the employing agency; and the CE experience and instructor. Discussion in these interviews has centered on setting new short- and long-term goals and objectives and planning learning experiences for the following semester and year. The successful completion of each CE course requirement has granted the student four college credits toward an AAS degree in the Division of Business at COM; however, Texas accrediting agencies and

four-year colleges and universities may or may not accept these credits as transferable and applicable toward a baccalaureate degree.

#### Summary

The CE strategy was first implemented in the United States in 1906. In 1961 significant research efforts began to appraise the major aspects of CE programs and to compare cooperative education students with non-cooperative education students. In a period of 14 years, researchers have defined significant differences among these two populations of students. Numerous positive effects of CE on its participants have been evidenced through this research.

In establishing the creditability of CE, the responsibility for formulating course content and granting degree credit was described by many writers as a current area of concern. Specifying goals and objectives and evaluating learning outcomes for CE students were emerging strategies for proving the worth of CE. Yet, many proponents of CE have expended their primary efforts toward defining funding alternatives, expanding placement activities, and developing jobs. Many times these educators have not recognized the need to confirm the educational soundness--the reliability and the validity of CE--through CE course or content improvement.

### CHAPTER III

#### DISCUSSION AND RESULTS OF DATA ANALYSIS

##### Survey Profile Descriptor

The validated survey instrument was mailed to all state post-secondary education consultants representing the Texas Education Agency and the Coordinating Board of Texas. Also, ten Texas four-year college and university administrators of business programs, representing the population of schools most attended by COM students, received the instrument. All consultants and administrators responded to the request for the rank ordering of the 16 statements. There were 21 usable responses returned out of a total of 24. From the accrediting agencies, one respondent acquiesced to his peer group, stating support for their responses; and another respondent did not follow the directions of the instrument, leaving a total of 12 usable responses from the group of state consultants. From the group of university administrators, one respondent failed to assign rank order numbers to all statements, leaving nine usable responses. Each respondent signed and dated the survey instrument and requested a copy of the final study.

##### Rank Ordering of Cooperative Education Course Content Statements

Respondents from the universities and state agencies rank ordered 16 CE course content statements on the basis of the most important to

the least important, on a scale of 1 through 16. Ranking was based on the respondent's perception of appropriate content for a course in CE in post-secondary business programs. Rank order numbers assigned by the combined group of respondents for each CE statement were totaled; and the rank order for each statement was determined, as shown in Table 1.

Since the range between the highest and lowest totals of the combined group was more than the total number of respondents, the final criteria contains 50% of all the CE statements determined by the lowest totals or the highest rank order. Statements 2, 3, 5, 6, 8, 13, 15, and 16 represent the first eight ranked by the combined group as the most important for validating CE course content in business programs (See Table 1). The highest ranked statements emphasize career exploration, career growth, and career confirmation with an awareness of societal relationships. A reaffirmation of the traditional or historical career model for CE is noted in the respondents' choices of statements 3, 13, and 16. The widely publicized definition of CE is reflected in statement 3. The emphasis on testing theoretical classroom models in actual work situations was utilized by Herman Schneider in 1906 and has been reconfirmed by more current research (Wilson, 1961; Swanson, 1974). Statements 13 and 16 stress the importance of establishing a detailed career plan with specific, individualized objectives designed to improve the total person.

However, in statements 2, 5, 6, 8, and 15, the respondents supported a goal of more current field experience models--i.e., to afford the student an opportunity to examine societal factors affecting him, the

Table 1  
Cooperative Education Course Content Statements Rank Ordered by the  
Combined Group of State Consultants and University Administrators  
N=21

| Statements                                                                                                                                                                                                                                                                         | Rank Order |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1. The student will contribute to an improvement in the effectiveness, the efficiency, and the profitability of the employing organization.                                                                                                                                        | 10         |
| 2. The student will increase his knowledge of the total structure of the employing organization (goals and objectives, line functions, service functions, policies, procedures, etc.) and acquire an awareness of the relationship between his job, the organization, and society. | 4          |
| 3. The student will apply various theories and concepts studied and various skills obtained in the business classroom environment in the actual work environment.                                                                                                                  | 3          |
| 4. The student will describe or demonstrate effective procedures for obtaining employment and will assume the responsibility for maintaining accurate employment records.                                                                                                          | 12         |
| 5. The student will explore and define professional and personal skills that will be needed in the corporate, governmental, and/or other societal settings of the future.                                                                                                          | 7          |
| 6. The student will increase his awareness of fellow humans in the work environment by identifying and valuing differences and similarities in ethnic backgrounds, sex, age, values, attitudes, perceptions, and/or beliefs.                                                       | 2          |
| 7. The student will establish basic guidelines for the management of his money, considering earning, spending, saving, and sharing alternatives.                                                                                                                                   | 13         |
| 8. The student will examine the professional ethics, the moral responsibilities, and the outcomes of high performance behaviors encountered in the employing organization.                                                                                                         | 8          |

Table 1 (continued)

| Statements                                                                                                                                                                                                                                                                                                  | Rank Order |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 9. The student will assess the effect and extent of practices and customs that influence people at work.                                                                                                                                                                                                    | 9          |
| 10. The student will analyze the employee benefits of the employing organization and assess the worth of these benefits to his career.                                                                                                                                                                      | 15         |
| 11. The student will analyze the personnel policies of the employing organization and their relationships to laws concerning employment.                                                                                                                                                                    | 14         |
| 12. The student will define and evaluate his responsibilities as a citizen to the governing process at the city, state, and/or Federal level.                                                                                                                                                               | 11         |
| 13. The student will establish a career plan by identifying and evaluating human and material resources relating to his career, by confirming or reconfirming his career choice, and by clarifying and setting long- and short-term career goals.                                                           | 6          |
| 14. The student will analyze both long- and short-term advantages and disadvantages of unionism, reflecting upon the constitution and by-laws of a labor union in the employing organization or in the community.                                                                                           | 16         |
| 15. The student will identify areas of human conflict and will apply problem-analysis and decision-making techniques for identifying alternative solutions.                                                                                                                                                 | 5          |
| 16. The student will identify the cognitive, affective, and psychomotor competencies required in his particular career area, assess his strengths and weaknesses in these areas, and improve those conceptual, interpersonal, and/or technical skills that he specifies as critical to a successful career. | 1          |

work assignment, the employing organization, and the community. Statements 2 and 5 concentrate on the function and structure of larger societal organizations--namely, corporate and governmental institutions; whereas, statements 6, 8, and 15 deal primarily with the study of human behavior and the positive and negative forces that create productive and non-productive, satisfied and dissatisfied persons within these institutions.

Statements 1, 4, 7, 9, 10, 11, 12, and 14 were considered least important by the combined group (See Table 1). Statements 1, 4, 7, 10, 11, and 14 encompass the more practical aspects of the CE course; such as, obtaining employment, establishing and managing records, and analyzing policies and benefits of the employing agency. The lower ranking of statement 14 can best be explained by the absence of laws dictating union membership in employing organizations in Texas. Texas is defined as a "right-to-work" state; therefore, respondents considered the study and evaluation of unionism as least important of all 16 statements at this time. In addition, statements 7, 9, and 12 reflect learning outcomes that may be considered on the periphery of a curriculum in business programs. These three statements may be considered as more appropriate goals of courses in finance, sociology, and government.

In Table 2, CE course content statements are rank ordered by the group of state consultants; and, in Table 3, CE course content statements are rank ordered by the group of university administrators. Table 4 offers a comparison of the rank ordering of the CE statements by the combined group and the separate groups. For example, a rank order of 10 for statement 1 was assigned by both the state consultants and university administrators. This statement ranks with the last eight

Table 2  
Cooperative Education Course Content Statements Rank Ordered by the  
Group of State Consultants  
N=12

| Statements                                                                                                                                                                                                                                                                         | Rank Order |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1. The student will contribute to an improvement in the effectiveness, the efficiency, and the profitability of the employing organization.                                                                                                                                        | 10         |
| 2. The student will increase his knowledge of the total structure of the employing organization (goals and objectives, line functions, service functions, policies, procedures, etc.) and acquire an awareness of the relationship between his job, the organization, and society. | 5          |
| 3. The student will apply various theories and concepts studied and various skills obtained in the business classroom environment in the actual work environment.                                                                                                                  | 2          |
| 4. The student will describe or demonstrate effective procedures for obtaining employment and will assume the responsibility for maintaining accurate employment records.                                                                                                          | 13         |
| 5. The student will explore and define professional and personal skills that will be needed in the corporate, governmental, and/or other societal settings of the future.                                                                                                          | 8          |
| 6. The student will increase his awareness of fellow humans in the work environment by identifying and valuing differences and similarities in ethnic backgrounds, sex, age, values, attitudes, perceptions, and/or beliefs.                                                       | 4          |
| 7. The student will establish basic guidelines for the management of his money, considering earning, spending, saving, and sharing alternatives.                                                                                                                                   | 12         |
| 8. The student will examine the professional ethics, the moral responsibilities, and the outcomes of high performance behaviors encountered in the employing organization.                                                                                                         | 7          |

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Table 2 (continued)

| Statements                                                                                                                                                                                                                                                                                                  | Rank Order |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 9. The student will assess the effect and extent of practices and customs that influence people at work.                                                                                                                                                                                                    | 11         |
| 10. The student will analyze the employee benefits of the employing organization and assess the worth of these benefits to his career.                                                                                                                                                                      | 14         |
| 11. The student will analyze the personnel policies of the employing organization and their relationships to laws concerning employment.                                                                                                                                                                    | 15         |
| 12. The student will define and evaluate his responsibilities as a citizen to the governing process at the city, state, and/or Federal level.                                                                                                                                                               | 9          |
| 13. The student will establish a career plan by identifying and evaluating human and material resources relating to his career, by confirming or reconfirming his career choice, and by clarifying and setting long- and short-term career goals.                                                           | 3          |
| 14. The student will analyze both long- and short-term advantages and disadvantages of unionism, reflecting upon the constitution and by-laws of a labor union in the employing organization or in the community.                                                                                           | 16         |
| 15. The student will identify areas of human conflict and will apply problem-analysis and decision-making techniques for identifying alternative solutions.                                                                                                                                                 | 6          |
| 16. The student will identify the cognitive, affective, and psychomotor competencies required in his particular career area, assess his strengths and weaknesses in these areas, and improve those conceptual, interpersonal, and/or technical skills that he specifies as critical to a successful career. | 1          |

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Table 3

Cooperative Education Course Content Statements Rank Ordered by the  
Group of University Administrators  
N=9

| Statements                                                                                                                                                                                                                                                                         | Rank Order |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 1. The student will contribute to an improvement in the effectiveness, the efficiency, and the profitability of the employing organization.                                                                                                                                        | 10         |
| 2. The student will increase his knowledge of the total structure of the employing organization (goals and objectives, line functions, service functions, policies, procedures, etc.) and acquire an awareness of the relationship between his job, the organization, and society. | 3          |
| 3. The student will apply various theories and concepts studied and various skills obtained in the business classroom environment in the actual work environment.                                                                                                                  | 6          |
| 4. The student will describe or demonstrate effective procedures for obtaining employment and will assume the responsibility for maintaining accurate employment records.                                                                                                          | 12         |
| 5. The student will explore and define professional and personal skills that will be needed in the corporate, governmental, and/or other societal settings of the future.                                                                                                          | 5          |
| 6. The student will increase his awareness of fellow humans in the work environment by identifying and valuing differences and similarities in ethnic backgrounds, sex, age, values, attitudes, perceptions, and/or beliefs.                                                       | 1          |
| 7. The student will establish basic guidelines for the management of his money, considering earning, spending, saving, and sharing alternatives.                                                                                                                                   | 16         |
| 8. The student will examine the professional ethics, the moral responsibilities, and the outcomes of high performance behaviors encountered in the employing organization.                                                                                                         | 9          |

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Table 3 (continued)

| Statements                                                                                                                                                                                                                                                                                                  | Rank Order |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|
| 9. The student will assess the effect and extent of practices and customs that influence people at work.                                                                                                                                                                                                    | 7          |
| 10. The student will analyze the employee benefits of the employing organization and assess the worth of these benefits to his career.                                                                                                                                                                      | 15         |
| 11. The student will analyze the personnel policies of the employing organization and their relationships to laws concerning employment.                                                                                                                                                                    | 11         |
| 12. The student will define and evaluate his responsibilities as a citizen to the governing process at the city, state, and/or Federal level.                                                                                                                                                               | 13         |
| 13. The student will establish a career plan by identifying and evaluating human and material resources relating to his career, by confirming or reconfirming his career choice, and by clarifying and setting long- and short-term career goals.                                                           | 8          |
| 14. The student will analyze both long- and short-term advantages and disadvantages of unionism, reflecting upon the constitution and by-laws of a labor union in the employing organization or in the community.                                                                                           | 14         |
| 15. The student will identify areas of human conflict and will apply problem-analysis and decision-making techniques for identifying alternative solutions.                                                                                                                                                 | 2          |
| 16. The student will identify the cognitive, affective, and psychomotor competencies required in his particular career area, assess his strengths and weaknesses in these areas, and improve those conceptual, interpersonal, and/or technical skills that he specifies as critical to a successful career. | 4          |

statements or in the least important category. Thus, there is unanimity of ranking among both groups concerning the importance of time spent towards organizational improvement.

Also, in Table 4 the influence of the 12 state consultants over the rank ordering of the combined group is evidenced in the resulting placement of Statements 3, 11, 15, and 16. Statements 3, 15, and 16 were among the first eight highest rank order statements of the combined group. Statement 15, which required creative problem-analysis and decision-making techniques, was ranked 5 by the combined group, 6 by the state consultants, and 2 by the university administrators. The state consultants chose more investigative- and applied-type statements, as reflected in their ranking of 2 and 1 for statements 3 and 16, respectively. The ranking by the combined group was 3 and 1 for statements 3 and 16, respectively. However, for statements 3 and 16, the university administrators assigned lower rank order numbers of 6 and 4, respectively. Statement 11 was among the last eight lowest rank order statements with a lower value of 14 assigned by the combined group and an equally low value of 15 given by the state consultants. However, a higher ranking of 11 was given by the university administrators. Once again the university administrators chose a statement that would require higher-level cognition through analysis and synthesis and pre-requisite knowledge in business law, an area most often specified for business students transferring to university campuses and least often required for students terminating their studies after two years in a career or AAS program.

In other statements, however, each separate group equally affected the rank order of the combined group. Those first eight statements ranked

Table 4

A Comparison of Rank Ordering of the Cooperative Education Statements by the Combined Group and the Separate Groups

| Statements                                                                                                                                                                                                                                                                         | Rank Order     |                   |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|---------------------------|
|                                                                                                                                                                                                                                                                                    | Combined Group | State Consultants | University Administrators |
| 1. The student will contribute to an improvement in the effectiveness, the efficiency, and the profitability of the employing organization.                                                                                                                                        | 10             | 10                | 10                        |
| 2. The student will increase his knowledge of the total structure of the employing organization (goals and objectives, line functions, service functions, policies, procedures, etc.) and acquire an awareness of the relationship between his job, the organization, and society. | 4              | 5                 | 3                         |
| 3. The student will apply various theories and concepts studied and various skills obtained in the business classroom environment in the actual work environment.                                                                                                                  | 3              | 2                 | 6                         |
| 4. The student will describe or demonstrate effective procedures for obtaining employment and will assume the responsibility for maintaining accurate employment records.                                                                                                          | 12             | 13                | 12                        |
| 5. The student will explore and define professional and personal skills that will be needed in the corporate, governmental, and/or other societal settings of the future.                                                                                                          | 7              | 8                 | 5                         |

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Table 4 (continued)

| Statements                                                                                                                                                                                                                   | Rank Order     |                   |                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|---------------------------|
|                                                                                                                                                                                                                              | Combined Group | State Consultants | University Administrators |
| 6. The student will increase his awareness of fellow humans in the work environment by identifying and valuing differences and similarities in ethnic backgrounds, sex, age, values, attitudes, perceptions, and/or beliefs. | 2              | 4                 | 1                         |
| 7. The student will establish basic guidelines for the management of his money, considering earning, spending, saving, and sharing alternatives.                                                                             | 13             | 12                | 16                        |
| 8. The student will examine the professional ethics, the moral responsibilities, and the outcomes of high performance behaviors encountered in the employing organization.                                                   | 8              | 7                 | 9                         |
| 9. The student will assess the effect and extent of practices and customs that influence people at work.                                                                                                                     | 9              | 11                | 7                         |
| 10. The student will analyze the employee benefits of the employing organization and assess the worth of these benefits to his career.                                                                                       | 15             | 14                | 15                        |
| 11. The student will analyze the personnel policies of the employing organization and their relationships to laws concerning employment.                                                                                     | 14             | 15                | 11                        |

Table 4 (continued)

| Statements                                                                                                                                                                                                                                                                                                  | Rank Order     |                   |                           |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|---------------------------|
|                                                                                                                                                                                                                                                                                                             | Combined Group | State Consultants | University Administrators |
| 12. The student will define and evaluate his responsibilities as a citizen to the governing process at the city, state, and/or Federal level.                                                                                                                                                               | 11             | 9                 | 13                        |
| 13. The student will establish a career plan by identifying and evaluating human and material resources relating to his career, by confirming or reconfirming his career choice, and by clarifying and setting long- and short-term career goals.                                                           | 6              | 3                 | 8                         |
| 14. The student will analyze both long- and short-term advantages and disadvantages of unionism, reflecting upon the constitution and by-laws of a labor union in the employing organization or in the community.                                                                                           | 16             | 16                | 14                        |
| 15. The student will identify areas of human conflict and will apply problem-analysis and decision-making techniques for identifying alternative solutions.                                                                                                                                                 | 5              | 6                 | 2                         |
| 16. The student will identify the cognitive, affective, and psychomotor competencies required in his particular career area, assess his strengths and weaknesses in these areas, and improve those conceptual, interpersonal, and/or technical skills that he specifies as critical to a successful career. | 1              | 1                 | 4                         |

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by the combined group as most important in formulating CE course content in business programs are also the first eight statements ranked by the state consultants and, with the exception of statement 8, are the first eight statements ranked by the university administrators. Statement 8 received a ranking of 9 by the university administrators. Therefore, if the consultants, as a group, or the administrators, as a group, had been designated as the group to determine the most important statements, the same first eight statements, as assigned by the combined group, would have emerged as the most important for establishing criteria, with the exception of statement 8.

A descriptive summary of data for the combined group and each of the separate groups is shown in Tables 5, 6, and 7, respectively. Statements are listed on these tables in sequence according to the most important (1) to the least important (16) as ranked by the combined group, in order to better display the range of the medians, and semi-interquartile ranges (SIQR).

In Table 6, statements 2 and 6 display identical totals; so, the SIQR of the two were compared to determine rank ordering. Since the SIQR of statement 6 indicated more unity in responses relative to statement 2, statement 6 was ranked above statement 2.

Statements 1 and 8, as pictured in Table 7, show identical totals; thus, the SIQR of the two were compared to find appropriate rank ordering. Since the SIQR of statement 8 exhibited more unity in responses relative to statement 1, statement 8 was ranked above statement 1.

For the combined group of state consultants and university administrators, the greatest dispersion of responses appeared on statement

Table 5

A Summary of Data for the Combined Group  
N=21

| Statements                                                                                                                                                                                                                                                                                                  | Rank Order | Totals of Rank<br>Order Statements | Md   | SIQR |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------|------|------|
| 16. The student will identify the cognitive, affective, and psychomotor competencies required in his particular career area, assess his strengths and weaknesses in these areas, and improve those conceptual, interpersonal, and/or technical skills that he specifies as critical to a successful career. | 1          | 93                                 | 3.29 | 1.77 |
| 6. The student will increase his awareness of fellow humans in the work environment by identifying and valuing differences and similarities in ethnic backgrounds, sex, age, values, attitudes, perceptions, and/or beliefs.                                                                                | 2          | 110                                | 4.75 | 2.52 |
| 3. The student will apply various theories and concepts studied and various skills obtained in the business classroom environment in the actual work environment.                                                                                                                                           | 3          | 114                                | 5.0  | 3.03 |
| 2. The student will increase his knowledge of the total structure of the employing organization (goals and objectives, line functions, service functions, policies, procedures, etc.) and acquire an awareness of the relationship between his job, the organization, and society.                          | 4          | 120                                | 4.75 | 3.63 |
| 15. The student will identify areas of human conflict and will apply problem-analysis and decision-making techniques for identifying alternative solutions.                                                                                                                                                 | 5          | 131                                | 4.4  | 2.63 |

Table 5 (continued)

| Statements                                                                                                                                                                                                                                        | Rank Order | Totals of Rank<br>Order Statements | Md    | SIQR |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------|-------|------|
| 13. The student will establish a career plan by identifying and evaluating human and material resources relating to his career, by confirming or reconfirming his career choice, and by clarifying and setting long- and short-term career goals. | 6          | 137                                | 5.13  | 3.03 |
| 5. The student will explore and define professional and personal skills that will be needed in the corporate, governmental, and/or other societal settings of the future.                                                                         | 7          | 153                                | 6.88  | 2.31 |
| 8. The student will examine the professional ethics, the moral responsibilities, and the outcomes of high performance behaviors encountered in the employing organization.                                                                        | 8          | 178                                | 8.33  | 3.31 |
| 9. The student will assess the effect and extent of practices and customs that influence people at work.                                                                                                                                          | 9          | 188                                | 9.67  | 4.25 |
| 1. The student will contribute to an improvement in the effectiveness, the efficiency, and the profitability of the employing organization.                                                                                                       | 10         | 200                                | 9.0   | 4.08 |
| 12. The student will define and evaluate his responsibilities as a citizen to the governing process at the city, state, and/or Federal level.                                                                                                     | 11         | 220                                | 10.88 | 1.92 |
| 4. The student will describe or demonstrate effective procedures for obtaining employment and will assume the responsibility for maintaining accurate employment records.                                                                         | 12         | 230                                | 10.75 | 2.5  |

Table 5 (continued)

| Statements                                                                                                                                                                                                        | Rank Order | Totals of Rank<br>Order Statements | Md    | SIQR |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------|-------|------|
| 7. The student will establish basic guidelines for the management of his money, considering earning, spending, saving, and sharing alternatives.                                                                  | 13         | 235                                | 11.75 | 2.81 |
| 11. The student will analyze the personnel policies of the employing organization and their relationships to laws concerning employment.                                                                          | 14         | 237                                | 12.25 | 2.42 |
| 10. The student will analyze the employee benefits of the employing organization and assess the worth of these benefits to his career.                                                                            | 15         | 241                                | 12.25 | 2.52 |
| 14. The student will analyze both long- and short-term advantages and disadvantages of unionism, reflecting upon the constitution and by-laws of a labor union in the employing organization or in the community. | 16         | 269                                | 13.33 | 3.11 |

Table 6  
A Summary of Data for the State Consultants  
N=12

| Combined Group                                                                                                                                                                                                                                                                                              |            | State Consultants |                                 |     |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------|---------------------------------|-----|------|
| Statements                                                                                                                                                                                                                                                                                                  | Rank Order | Rank Order        | Totals of Rank Order Statements | Md  | SIQR |
| 16. The student will identify the cognitive, affective, and psychomotor competencies required in his particular career area, assess his strengths and weaknesses in these areas, and improve those conceptual, interpersonal, and/or technical skills that he specifies as critical to a successful career. | 1          | 1                 | 42                              | 2.9 | 1.13 |
| 6. The student will increase his awareness of fellow humans in the work environment by identifying and valuing differences and similarities in ethnic backgrounds, sex, age, values, attitudes, perceptions, and/or beliefs.                                                                                | 2          | 4                 | 70                              | 5.0 | 2.63 |
| 3. The student will apply various theories and concepts studied and various skills obtained in the business classroom environment in the actual work environment.                                                                                                                                           | 3          | 2                 | 54                              | 3.5 | 2.63 |
| 2. The student will increase his knowledge of the total structure of the employing organization (goals and objectives, line functions, service functions, policies, procedures, etc.) and acquire an awareness of the relationship between his job, the organization, and society.                          | 4          | 5                 | 70                              | 5.5 | 3.0  |
| 15. The student will identify areas of human conflict and will apply problem-analysis and decision-making techniques for identifying alternative solutions.                                                                                                                                                 | 5          | 6                 | 86                              | 6.0 | 2.33 |

Table 6 (continued)

| Combined Group                                                                                                                                                                                                                                    |            | State Consultants |                                 |       |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------|---------------------------------|-------|------|
| Statements                                                                                                                                                                                                                                        | Rank Order | Rank Order        | Totals of Rank Order Statements | Md    | SIQR |
| 13. The student will establish a career plan by identifying and evaluating human and material resources relating to his career, by confirming or reconfirming his career choice, and by clarifying and setting long- and short-term career goals. | 6          | 3                 | 61                              | 4.83  | 2.0  |
| 5. The student will explore and define professional and personal skills that will be needed in the corporate, governmental, and/or other societal settings of the future.                                                                         | 7          | 8                 | 101                             | 8.5   | 2.5  |
| 8. The student will examine the professional ethics, the moral responsibilities, and the outcomes of high performance behaviors encountered in the employing organization.                                                                        | 8          | 7                 | 99                              | 9.5   | 3.42 |
| 9. The student will assess the effect and extent of practices and customs that influence people at work.                                                                                                                                          | 9          | 11                | 122                             | 10.18 | 2.75 |
| 1. The student will contribute to an improvement in the effectiveness, the efficiency, and the profitability of the employing organization.                                                                                                       | 10         | 10                | 121                             | 9.17  | 3.33 |
| 12. The student will define and evaluate his responsibilities as a citizen to the governing process at the city, state, and/or Federal level.                                                                                                     | 11         | 9                 | 117                             | 10.5  | 2.0  |

Table 6 (continued)

| Combined Group                                                                                                                                                                                                    |            | State Consultants |                                 |      |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------------|---------------------------------|------|------|
| Statements                                                                                                                                                                                                        | Rank Order | Rank Order        | Totals of Rank Order Statements | Md   | SIQR |
| 4. The student will describe or demonstrate effective procedures for obtaining employment and will assume the responsibility for maintaining accurate employment records.                                         | 12         | 13                | 128                             | 11.0 | 2.0  |
| 7. The student will establish basic guidelines for the management of his money, considering earning, spending, saving, and sharing alternatives.                                                                  | 13         | 12                | 123                             | 10.5 | 3.0  |
| 11. The student will analyze the personnel policies of the employing organization and their relationships to laws concerning employment.                                                                          | 14         | 15                | 145                             | 13.5 | 1.38 |
| 10. The student will analyze the employee benefits of the employing organization and assess the worth of these benefits to his career.                                                                            | 15         | 14                | 130                             | 11.5 | 3.67 |
| 14. The student will analyze both long- and short-term advantages and disadvantages of unionism, reflecting upon the constitution and by-laws of a labor union in the employing organization or in the community. | 16         | 16                | 163                             | 15.5 | 1.75 |

Table 7

A Summary of Data for the University Administrators  
N=9

| Combined Group                                                                                                                                                                                                                                                                                              |            | University Administrators |                                 |      |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------|---------------------------------|------|------|
| Statements                                                                                                                                                                                                                                                                                                  | Rank Order | Rank Order                | Totals of Rank Order Statements | Md   | SIQR |
| 16. The student will identify the cognitive, affective, and psychomotor competencies required in his particular career area, assess his strengths and weaknesses in these areas, and improve those conceptual, interpersonal, and/or technical skills that he specifies as critical to a successful career. | 1          | 4                         | 51                              | 5.67 | 1.65 |
| 6. The student will increase his awareness of fellow humans in the work environment by identifying and valuing differences and similarities in ethnic backgrounds, sex, age, values, attitudes, perceptions, and/or beliefs.                                                                                | 2          | 1                         | 40                              | 3.0  | 2.64 |
| 3. The student will apply various theories and concepts studied and various skills obtained in the business classroom environment in the actual work environment.                                                                                                                                           | 3          | 6                         | 60                              | 6.75 | 2.31 |
| 2. The student will increase his knowledge of the total structure of the employing organization (goals and objectives, line functions, service functions, policies, procedures, etc.) and acquire an awareness of the relationship between his job, the organization, and society.                          | 4          | 3                         | 50                              | 3.75 | 3.92 |
| 15. The student will identify areas of human conflict and will apply problem-analysis and decision-making techniques for identifying alternative solutions.                                                                                                                                                 | 5          | 2                         | 45                              | 3.75 | 1.81 |

Table 7 (continued)

| Combined Group                                                                                                                                                                                                                                    |            | University Administrators |                                 |       |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------|---------------------------------|-------|------|
| Statements                                                                                                                                                                                                                                        | Rank Order | Rank Order                | Totals of Rank Order Statements | Md    | SIQR |
| 13. The student will establish a career plan by identifying and evaluating human and material resources relating to his career, by confirming or reconfirming his career choice, and by clarifying and setting long- and short-term career goals. | 6          | 8                         | 76                              | 9.0   | 4.38 |
| 5. The student will explore and define professional and personal skills that will be needed in the corporate, governmental, and/or other societal settings of the future.                                                                         | 7          | 5                         | 52                              | 5.75  | 2.06 |
| 8. The student will examine the professional ethics, the moral responsibilities, and the outcomes of high performance behaviors encountered in the employing organization.                                                                        | 8          | 9                         | 79                              | 8.25  | 2.75 |
| 9. The student will assess the effect and extent of practices and customs that influence people at work.                                                                                                                                          | 9          | 7                         | 66                              | 5.0   | 4.0  |
| 1. The student will contribute to an improvement in the effectiveness, the efficiency, and the profitability of the employing organization.                                                                                                       | 10         | 10                        | 79                              | 10.67 | 2.90 |
| 12. The student will define and evaluate his responsibilities as a citizen to the governing process at the city, state, and/or Federal level.                                                                                                     | 11         | 13                        | 103                             | 12.0  | 1.63 |

Table 7 (continued)

| Combined Group                                                                                                                                                                                                    |            | University Administrators |                                 |       |      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------------------------|---------------------------------|-------|------|
| Statements                                                                                                                                                                                                        | Rank Order | Rank Order                | Totals of Rank Order Statements | Md    | SIQR |
| 4. The student will describe or demonstrate effective procedures for obtaining employment and will assume the responsibility for maintaining accurate employment records.                                         | 12         | 12                        | 102                             | 10.25 | 3.56 |
| 7. The student will establish basic guidelines for the management of his money, considering earning, spending, saving, and sharing alternatives.                                                                  | 13         | 16                        | 112                             | 13.0  | 2.56 |
| 11. The student will analyze the personnel policies of the employing organization and their relationships to laws concerning employment.                                                                          | 14         | 11                        | 92                              | 10.0  | 1.81 |
| 10. The student will analyze the employee benefits of the employing organization and assess the worth of these benefits to his career.                                                                            | 15         | 15                        | 111                             | 13.75 | 2.34 |
| 14. The student will analyze both long- and short-term advantages and disadvantages of unionism, reflecting upon the constitution and by-laws of a labor union in the employing organization or in the community. | 16         | 14                        | 106                             | 11.75 | 1.81 |

9 and the least dispersion on statement 16, as shown in Table 5. Statements 9 and 16 were ranked 9 and 1, respectively, by the combined group. The SIQR for statement 9 is 4.25 for the combined group, followed by 2.75 for the group of state consultants, and by 4.0 for the group of university administrators. There is a higher level of agreement among the state consultants in assessing the value of sociological factors in the work force than among the combined group or the university administrators, as shown by the low SIQR of the state consultants and the higher SIQR of the other two groups.

Statement 16, appears on Tables 5, 6, and 7 with a SIQR of 1.77 for the combined group, 1.13 for the group of state consultants, and 1.65 for the group of university administrators. As with the combined group, the least dispersion is seen for statement 16 among the group of state consultants. Even in the group of university administrators, statement 16 is one of two statements showing a SIQR of less than 1.65. Therefore, there appears to be a high level of agreement among all respondents concerning the inclusion of the identification and improvement of career-related competencies in a CE course, as reflected in the ranking and low SIQR of statement 16.

In addition to statement 16, statement 12 displays a close dispersion of responses by the combined group with an SIQR of 1.92, followed by an SIQR of 2.0 for the state consultants, and 1.63 for the university administrators. All groups ranked statement 12 among the last eight rank ordered statements, and the medians for statement 12 for all groups are congruent with each rank order number assignment, as shown in Tables 5, 6, 7, respectively. Thus, the exclusion of a study of citizenship

responsibilities in a CE course, as reflected in the rank order, median, and SIQR of statement 12 appears to be supported by almost all of the respondents. This agreement can best be explained by the non-traditional CE topic of statement 12. The review of related literature revealed only one CE model that emphasized the importance of examining the skills necessary for democratic citizenship--the COM "learning a living" model.

Overall, the group of university administrators have a considerably wider dispersion of responses for each statement than the group of state consultants. The SIQR for the statements ranked by the state consultants is from 1.13 to 3.67; whereas, the SIQR for the statements ranked by the university administrators is from 1.63 to 4.38. This wide dispersion of rank ordering by the university administrators may partially be explained by the influences of socio-cultural factors, the philosophy of the university, the tendency towards autonomy in Divisions of Business, and the lack of knowledge concerning more current trends in CE at the community colleges.

Actually, the observed semi-interquartile range in the combined group and in each separate group indicated a significantly wide dispersion of responses by the population; however, the relative validity of the upper group or first eight rank ordered statements is significant with respect to the lower group or last eight rank ordered statements. In other words, the difference between the two groups of statements is significant, but the precise rank ordering between each statement is not. In conclusion, the actual rank order of each statement is not as significant as the relative grouping of the statements.

### Summary

The population of state post-secondary education consultants and the population of university administrators, representing those schools most attended by COM students, responded to the request for rank ordering 16 CE course content statements on the basis of the most important to the least important. From the total of 24 responses, 21 were usable.

After rank order numbers assigned by the combined group were totaled, the rank order for each statement was determined by the lowest totals or the highest rank order. The final criteria contain 50% of all the CE statements. The highest ranked statements emphasize career exploration, career growth, and career confirmation, with an awareness of societal relationships. The lowest ranked statements encompass the more practical aspects of the CE course; such as, obtaining employment, establishing and managing records, and analyzing policies and benefits of the employing agencies. In addition, three lower ranked statements reflect learning outcomes that may be considered content statements for courses in finance, sociology, and government.

The influence of the state consultants over the rank ordering of statements in the combined group is evidenced in the resulting placement of four statements; however, for all other statements, each separate group equally affected the rank order in the combined group.

The observed semi-interquartile ranges in the combined group and in each separate group indicated a significantly wide dispersion of responses; nevertheless, the relative validity of the upper group of statements is significant with respect to the lower group of statements. The actual rank order of each statement is not as significant as the relative grouping of the statements.

## CHAPTER IV

### CRITERIA FOR COOPERATIVE EDUCATION COURSES IN BUSINESS

Cooperative education is a central curriculum tool capable of promoting both training and education for the student today and tomorrow. The purpose of CE follows John Dewey's philosophy of liberalizing a vocational experience in order to give the individual a sense of identity and a meaningful relationship with society. What Dewey (1966) was suggesting as educational purpose was not so much the technically or vocationally trained person as he was the educated person. This viewpoint has tremendous import for the direction of CE and for the development of CE criteria. Utilizing the vocational component, the cornerstone of cooperative education, CE courses can be developed based on an instructional model, not merely a placement model. What can emerge from this instructional plan is an educated person--a person who seeks to discover the interrelatedness of knowledge and activity; who thinks critically and can make judgments regarding the content of experiences; who accepts and welcomes role/job changes; who is not threatened by ambiguity; who is creative and flexible; and who assumes self accountability towards community responsibility.

The central problem, then, is to identify ways to help CE students take responsibility for their own education; define their work; and become self-trained, self-directed persons able to interpret meanings within their own lives.

### Cooperative Education Criteria

Criteria for assessing CE course content in post-secondary business programs were established by combining the upper group of CE survey statements, rank ordered by Texas state consultants and university administrators, with other researched factors underlying credentialed CE programs and courses in the United States. The criteria were designed as guidelines for planners or evaluators of CE courses and include statements under three major categories: definition of the educative purpose, basic course content, and learning system. The criteria for the course of study reflect content as well as system components, since the interaction between content and system in the teaching process determines the quality of results of the learning process.

#### Definition of the Educative Purpose

Cooperative education is a comprehensive and flexible strategy of applied learning incorporated into the curriculum of business programs. The course utilizing the CE strategy:

1. Provides for institutionally supervised work experiences in cooperating employer organizations;
2. Assures direct association with business professionals;
3. Stresses the development of technical skills, knowledge, and interpersonal behaviors through meaningful interactions with ideas, people, and organizations.

#### Basic Course Content

For the students the CE course must offer opportunities for individualizing behaviorally specified objectives which adhere to the following eight content areas:

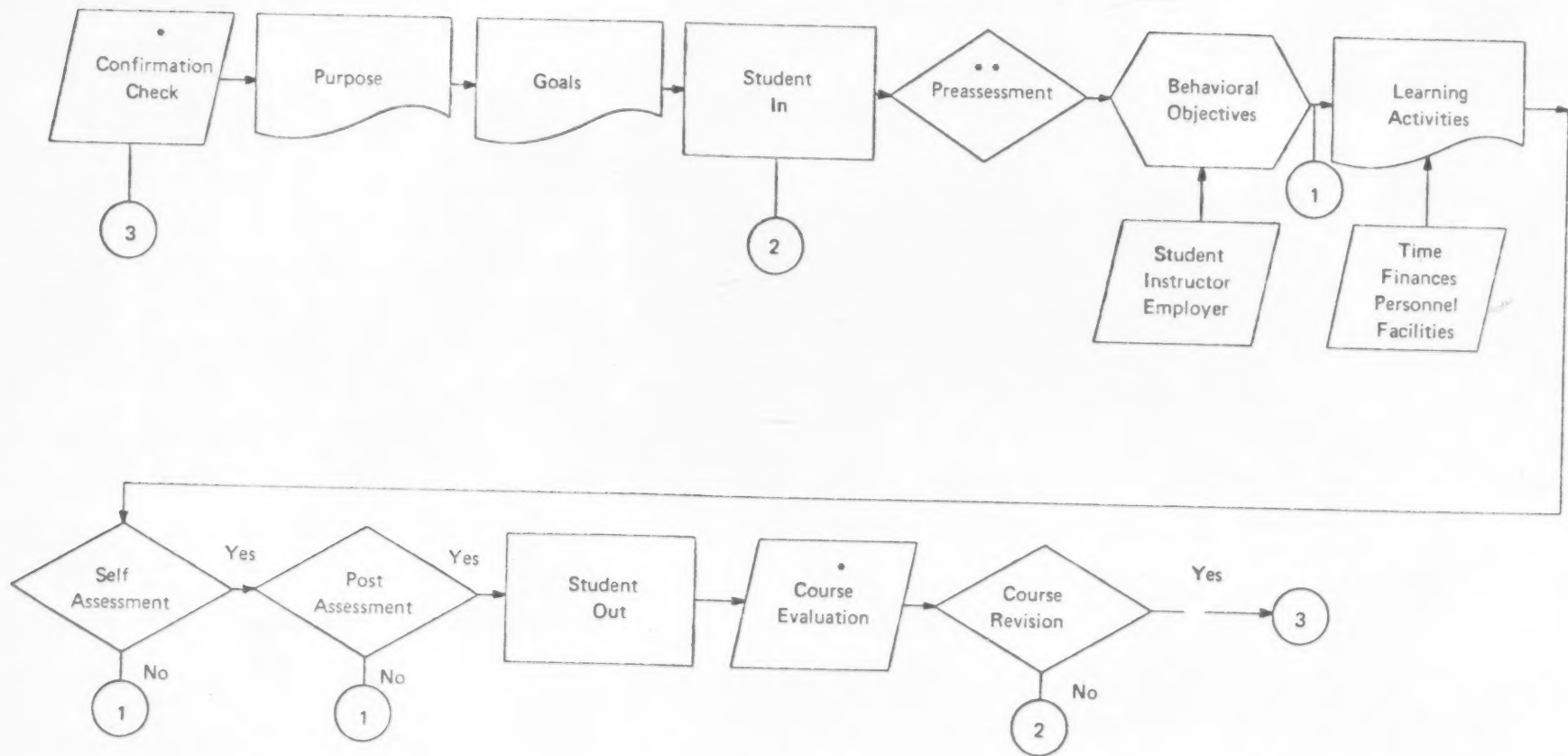
1. To identify, assess, and improve cognitive, affective, and psychomotor competencies in the particular career area;
2. To know and value differences and similarities in ethnic backgrounds, sex, age, values, attitudes, perceptions, and/or beliefs in the work environment;
3. To apply in the work environment those various theories and concepts studied and various skills obtained in the business classroom environment;
4. To acquire an awareness of the relationship between the job, the organization, and society;
5. To apply problem-analysis and decision-making techniques for identifying alternative solutions to areas of human conflict;
6. To establish a career plan through confirmation of a career choice and setting long- and short-term career goals;
7. To define professional and personal skills that will be needed in the corporate, governmental, and/or other societal settings of the future;
8. To examine the professional ethics, the moral responsibilities, and the outcomes of high performance behaviors encountered in the employing organization.

### Learning System

To assure optimum benefits from the basic course content, a systematic flow of efforts to establish a viable, meaningful, and creditable CE course should be directed by a well-defined learning system. Figure 1 illustrates a model system for the planners and evaluators of cooperative education. The model system requires the following structural components:

1. Advisory groups from the universities, accrediting agencies, business organizations, community, business faculty, and CE students meeting at least once a year to confirm the purpose, the basic course content, and the implementation and evaluation procedures for the CE course;
2. Preassessment techniques utilized to determine the student's level of functioning, his interests, needs, and goals;

# A MODEL SYSTEM FOR LEARNING



## • ADVISORY GROUPS

- a. Accrediting Agencies
- b. Business organizations
- c. Community
- d. Faculty
- e. Students
- f. University

## \*\* KNOWLEDGE, TECHNICAL SKILLS, INTERPERSONAL SKILLS

FIGURE 1.

3. Individualized behaviorally specified objectives written with and for each student affording opportunities for growth under each of the basic course content areas;
4. Behaviorally specified learning objectives defining the parameters of time, finances, personnel, and facilities before learning activities are planned;
5. A plan for implementation of meaningful learning activities to accomplish the objectives designed by the student, the instructor, and the employer;
6. Objectives incorporating standards of achievement that require the student to perform in the upper levels of the cognitive domain: application, analysis, synthesis, and evaluation;
7. Objectives incorporating standards of achievement in the affective domain that measure the extent to which the student receives, responds, values, and internalizes a value, belief, attitude, or philosophy;
8. Objectives incorporating standards of achievement in the psychomotor domain that evaluate the competency levels acquired through cognition, fixation, and automation;
9. Both formative and summative evaluation strategies utilized in determining progress and growth and grade and credit, respectively;
10. A contract, an instrument assuring clear understanding of areas of responsibility providing for the implementation and measurement of each objective, drafted and signed by the student, the instructor, and the employer.

The key to the CE strategy is relevancy for the development of each student through work experience. By enabling each student to design individualized behaviorally specified objectives, an implementation program of learning activities, and an evaluation method for measuring the outcomes of the objectives, the CE instructor with the employer will better facilitate the learning process and will help the student develop a realistic sense of personal power based on knowledge gained by practicing what he understands and by testing the consequences of his concepts and behaviors.

Summary

The criteria were developed by combining the first eight rank ordered statements from the survey instrument with other researched factors emerging from credentialed CE programs and courses. The criteria include content as well as system components. A definition of the educative purpose, basic course content, and a learning system focus on those factors that determine the quality of results in CE courses in business programs.

## CHAPTER V

### SUMMARY, IMPLICATIONS AND RECOMMENDATIONS

This chapter is organized into the following sections: summary of the procedure and results of the study, implications of the study, and recommendations for those utilizing the criteria.

#### Summary

The purpose of this study was to establish criteria for assessing the content validity of cooperative education courses in business programs at the post-secondary level of education. The "Cooperative Education Criteria" were developed from the results of the data analysis procured from a survey instrument containing 16 course content statements and from other researched factors underlying credentialed CE programs and courses in the United States. The statements in the survey instrument were refined and validated by a jury of 24 post-secondary CE coordinators from community colleges funded under Title IV-D, 1975-76.

Ten Texas administrators of business programs in those senior colleges and universities most attended by COM students and the population of consultants from the two state accrediting agencies responded to the request to rank order the 16 course content statements. The observed semi-interquartile range in the combined group of respondents indicated a significantly wide dispersion of responses; however, the

relative validity of the upper group or first eight rank ordered statements is significant with respect to the lower group or last eight rank ordered statements.

The final Criteria contain the first eight highest rank ordered statements. The highest ranked statements emphasize career exploration, growth, and confirmation, with an awareness of societal relationships. The lowest rank ordered statements encompass the more practical aspects of the CE course; such as, employment procedures, records management, and policy/benefit studies.

The Criteria include 20 guidelines under three major categories: a definition of the educative purpose, basic course content, and a learning system. The cooperative efforts of the CE instructor, the employer, and the student are essential to the successful implementation of a CE course adhering to the Criteria.

The Criteria provides a sound educational base for assessing the CE course in business programs and will pave the way for appropriate recognition of CE by the higher education community and the accrediting and funding agencies in Texas.

#### Implications

Since the CE strategy should be utilized to train practitioners and to help in the development of intelligent men and women who can accept change as a constant in their lives and who can learn to define their work, only those colleges and universities sponsoring innovative, proactive CE courses in business programs will respond positively to the Criteria.

The 20 guidelines under the Criteria will become a standard by which CE courses in business programs in Texas are assessed or created.

Evaluators of CE courses can utilize the Criteria in judging the validity of existing CE courses by applying each guideline to one or all of the following: the statements in a CE course syllabus or document, the course description in a college catalog, the procedural outlines in the CE student handbook, requirements in the learning contract or training plan, and the stipulations in the employer agreement. Furthermore, planners of CE courses can use the Criteria as a conceptual framework for creating the syllabus, course description, handbook, learning contract, and employer agreement.

As evidenced by the total number of responses to the survey instrument, the university administrators of business programs and state consultants are concerned about CE course content. In Texas efforts to articulate the educative purpose, the basic course content, and a learning system for non-traditional CE to both groups has been minimal; however, as the Criteria are distributed to these groups and are utilized in the assessment of CE courses in business, these courses will be revised and improved. In addition, the value of CE courses will be recognized by the accrediting agencies and the higher education community in Texas.

Acceptance of the Criteria by consultants and administrators in business programs will assure credentialing of CE courses that adhere to the Criteria. When CE courses in business are judged to be educationally beneficial to the student, appropriate state funding policies for CE should follow. With funding established for these non-traditional courses in business programs, other program planners will have the incentive to examine and to adapt the Criteria to CE courses in other academic or vocational program areas. Once the credentialing and the funding policies for CE courses are settled, college credit for CE courses will enable more business students to participate in the CE experience.

Other possible benefits resulting from this study for College of the Mainland will be the revision of the CE course documents in the Division of Business; the further utilization of the Criteria during a COM self-study year in determining the creditability and value of CE courses; and the development of a more positive and productive relationship with the COM employing community and advisory groups through a clearer definition of the educative purpose, basic course content, and the learning system of CE courses in business.

If persons representing accrediting agencies view this research as universal in nature, the Criteria will provide impetus for further research that would lead to the creation of guidelines and/or standards for other forms of non-traditional education; i.e., field experience education, cross-cultural experiences, service-learning internships, social and political action groups, field research, and/or external personal growth and development courses. Certainly, the format devised for the Criteria is applicable to any accredited college course; i.e., all courses awarding college credit should specify a definition of educative purpose, basic course content, and a learning system.

#### Recommendations

Based upon evidence provided by this study, the following recommendations are made:

1. A proposed implementation procedure for utilizing the Criteria for credentialing and funding purposes should be written and forwarded to the survey respondents.
2. Minimum levels of acceptability for each guideline in the Criteria should be determined.
3. The lower group of goal statements, as rejected by the surveyed consultants and university administrators, should be resubmitted to them for possible inclusion in other CE courses in business programs.

4. Future research should formulate minimum educational and work experience requirements for an instructor of a CE course in business.
5. To ease the transition from school to work, research to identify ways other than CE to bring the employing organizations and the educational institutions closer together should be conducted.

APPENDIX



March 12, 1976

Dear Administrator of Cooperative Education:

I need your help! Will you serve on a panel of experts to validate a survey instrument that will help me to produce criteria that will serve as a conceptual framework for the development of quality cooperative education course content? If your answer is yes, please take a few minutes to verify that the enclosed statements are clear, comprehensive, coherent, correct, and complete. Your responses will be of great value to me. If you wish to provide other statements that you perceive as important additions to the survey instrument, please feel free to do so.

A meeting of the jury or panel of experts will be held on April 21, 1976, in the Hotel Monteleon, New Orleans, Louisiana, at the Cooperative Education Association Convention. A notice of the time and place will be posted on the bulletin board at the registration desk. Please bring the survey instrument with your comments to this meeting; or, if you are unable to attend, please return the survey instrument and your comments to me in the enclosed envelope.

Thank you for your time, valuable assistance, and contribution in helping me validate my statements.

Cordially yours,

Dorothy E. McNutt, Chairperson  
Division of Business and Coordinator  
Cooperative Education

jkc

Enclosures



college of the mainland

April 12, 1976

Name  
Address  
City, State

Dear (Name of Consultant):

Abstract curricula are meaningless to many of our students today unless we provide them with some reason, some motivating factor to appreciate and use the abstractions. This motivation can be cooperative education.

Since 1969 cooperative education courses in the Division of Business at College of the Mainland have provided off-campus work and learning environments in public and private enterprises. These co-op courses have afforded the student specific opportunities for career exploration and enrichment in his major field of study--accounting, banking, computer science, management, marketing, real estate, and secretarial science. The faculty in the Division of Business believe that theory, when merged with cooperative work experience, will be remembered better and used in the future; thus, we propose that nothing reinforces a good theory and cements it to a mind like a living application of it. However, we believe that credit for cooperative education in the Division of Business must be assigned for learning resulting from work experience, not the work experiences to which students are exposed.

As Chairperson of the Division, I am conducting a study to establish criteria for assessing the content validity of cooperative education courses in the Division. The criteria will serve as a conceptual framework for the development of quality cooperative education course content and should be acceptable to the higher education community and accrediting agencies in Texas.

As a representative of an accrediting agency, you are important to the success of this study. Please help us by completing and returning the enclosed survey instrument by May 10, 1976. Thank you for your time, valuable assistance, and contribution in helping us set our objectives for cooperative education.

Cordially yours,

Dorothy E. McNutt, Chairperson  
Division of Business and Coordinator  
Cooperative Education

/db

Enclosures



April 12, 1976

Name  
Address  
City, State

Dear (Name of university):

College of the Mainland wants to better serve, for the present, our students and, for the future, your students. Abstract curricula are meaningless to many of our students today unless we provide them with some reason, some motivating factor to appreciate and use the abstractions. This motivation can be cooperative education.

Since 1969 cooperative education courses in the Division of Business at College of the Mainland have provided off-campus work and learning environments in public and private enterprises. These co-op courses have afforded the student specific opportunities for career exploration and enrichment in his major field of study--accounting, banking, computer science, management, marketing, real estate, and secretarial science. The faculty in the Division of Business believe that theory, when merged with cooperative work experience, will be remembered better and used in the future; thus, we propose that nothing reinforces a good theory and cements it to a mind like a living application of it. However, we believe that credit for cooperative education in the Division of Business must be assigned for learning resulting from work experience, not the work experiences to which students are exposed.

As Chairperson of the Division, I am conducting a study to establish criteria for assessing the content validity of cooperative education courses in the Division. The criteria will serve as a conceptual framework for the development of quality cooperative education course content and should be acceptable to the higher education community and accrediting agencies in Texas.

As an administrator in a university that is preferred by College of the Mainland business majors, you are important to the success of this study. Please help us by completing and returning the enclosed survey instrument by May 10, 1976. Thank you for your time, valuable assistance, and contribution in helping us set our objectives for cooperative education.

Cordially yours,

Dorothy E. McNutt, Chairperson  
Division of Business, and Coordinator  
Cooperative Education

/db  
Enclosures

## SURVEY

TO ESTABLISH CRITERIA FOR ASSESSING THE CONTENT VALIDITY OF  
COOPERATIVE EDUCATION COURSES IN POST-SECONDARY BUSINESS PROGRAMS

Please rank order each of the following 16 statements on the basis of the "most important" (1) to the "least important" (16) statement on a scale of 1 through 16. Assign a number to each statement based on what you perceive to be appropriate content for a course in cooperative education in post-secondary business programs.

Statements

Rank Order  
(Please assign  
a number 1  
through 16)

The student will contribute to an improvement in the effectiveness, the efficiency, and the profitability of the employing organization.

No. \_\_\_\_\_

The student will increase his knowledge of the total structure of the employing organization (goals and objectives, line functions, service functions, policies, procedures, etc.) and acquire an awareness of the relationship between his job, the organization, and society.

No. \_\_\_\_\_

The student will apply various theories and concepts studied and various skills obtained in the business classroom environment in the actual work environment.

No. \_\_\_\_\_

The student will describe or demonstrate effective procedures for obtaining employment and will assume the responsibility for maintaining accurate employment records.

No. \_\_\_\_\_

The student will explore and define professional and personal skills that will be needed in the corporate, governmental, and/or other societal settings of the future.

No. \_\_\_\_\_

The student will increase his awareness of fellow humans in the work environment by identifying and valuing differences and similarities in ethnic backgrounds, sex, age, values, attitudes, perceptions, and/or beliefs.

No. \_\_\_\_\_

The student will establish basic guidelines for the management of his money, considering earning, spending, saving, and sharing alternatives.

No. \_\_\_\_\_

The student will examine the professional ethics, the moral responsibilities, and the outcomes of high performance behaviors encountered in the employing organization.

No. \_\_\_\_\_

StatementsRank Order

The student will assess the effect and extent of practices and customs that influence people at work.

No. \_\_\_\_\_

The student will analyze the employee benefits of the employing organization and assess the worth of these benefits to his career.

No. \_\_\_\_\_

The student will analyze the personnel policies of the employing organization and their relationships to laws concerning employment.

No. \_\_\_\_\_

The student will define and evaluate his responsibilities as a citizen to the governing process at the city, state, and/or Federal level.

No. \_\_\_\_\_

The student will establish a career plan by identifying and evaluating human and material resources relating to his career, by confirming or reconfirming his career choice, and by clarifying and setting long- and short-term career goals.

No. \_\_\_\_\_

The student will analyze both long- and short-term advantages and disadvantages of unionism, reflecting upon the constitution and by-laws of a labor union in the employing organization or in the community.

No. \_\_\_\_\_

The student will identify areas of human conflict and will apply problem-analysis and decision-making techniques for identifying alternative solutions.

No. \_\_\_\_\_

The student will identify the cognitive, affective, and psychomotor competencies required in his particular career area, assess his strengths and weaknesses in these areas, and improve those conceptual, interpersonal, and/or technical skills that he specifies as critical to a successful career.

No. \_\_\_\_\_

Thank you for your cooperation!

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name and Title of Respondent

If you would like to receive an abstract of this study, please check below:

Yes \_\_\_\_\_

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